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IN THE

Supreme Court of the United States

October Term, 1964

No. 716

INDUSTRIAL INSTRUMENT CORPORATION,
Petitioner,

v.

THE FOXBORO COMPANY,
Respondent

PETITION FOR WRIT OF CERTIORARI

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IN THE

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No._____

INDUSTRIAL INSTRUMENT CORPORATION,
Petitioner,

v.

THE FOXBORO COMPANY,
Respondent

PETITION FOR WRIT OF CERTIORARI

To The Honorable The Chief Justice and Associate Justices of The Supreme Court of The United States:

Your petitioner. Industrial Instrument Corporation, prays for a review on a writ of certiorari of a decision of the United States Court of Appeals for the Fifth Circuit in a patent case styled "Industrial Instrument Corporation v. The Foxboro Company". Petitioner was plaintiff and owner of the patent-in-suit in the district court and was appellant in the court of appeals.

OPINIONS OF THE COURTS BELOW

Upon a second appeal in this case, the Fifth Circuit Court of Appeals affirmed the district court holding United States Letter 2,762,393 invalid, and this petition is for a review of this judgment. The opinion of the Fifth Circuit Court of Appeals is reported at 335 F.2d 123 and is appended hereto as Appendix A; its judgment on this opinion dated July 28, 1964 is printed herewith as Appendix B, and its order denying rehearing dated September 1, 1964 is printed herewith as Appendix C.

This second appeal was taken from a judgment of the district court on an unreported opinion dated August 1, 1963 following a reopened trial after remand by the court of Appeals. This trial court's opinion is appended hereto as Appendix D. The first opinion of the appellate court reversing and remanding, dated September 6, 1962 and reported at 307 F.2d 783, is appended hereto as Appendix E. The appellate court's opinion denying a petition for rehearing prior to the remand, dated December 5, 1962 and reported at 310 F.2d 686, is appended hereto as Appendix F.

The first opinion of the district court following the original trial, dated August 29, 1960 and unreported, is appended hereto as Appendix G.

One certified copy of the record of the original trial, comprising thirteen volumes, and of the record of the reopened remand trial, comprising two volumes, have been filed, all in accordance with the rules of this Court.

JURISDICTION

The opinion and judgment appealed from (Appendix A and B) was dated and entered on July 28, 1964, and petition for rehearing was denied on September 1, 1964. (Appendix C)

By appropriate orders, the Court of Appeals has stayed the mandate to permit application for certiorari to this Court.

The jurisdiction of this Court is invoked under the Judicial Code, 28 United States Code, Section 1254(1).

QUESTIONS PRESENTED

1. **May an appellate court affirm a judgment which relies upon a statute where the district court's conclusion of law is supported only by an alleged finding which merely paraphrases that statute?** The Fifth Circuit Court of Appeals' affirmance of the judgment in this case is in direct conflict with a 1961 decision of the Ninth Circuit Court of Appeals, which is herewith printed as Appendix H.

2. **May an appellate court affirm a judgment that a combination patent is anticipated by prior art when the district court did not find that the combination is disclosed in such prior art?**

3. **May an appellate court disregard the primary issue presented to it for determination by a litigant and thereby deny such litigant his right to his appellate "day in court" on that issue?**

STATUTES INVOLVED

The Patent Statutes are involved (Title 35, United States Code). Specifically, 35 U.S.C. § 103 is involved in question 1, and 35 U.S.C. § 102 is involved in questions 2 and 3.

Section 103 provides:

> **"§ 103. Conditions for patentability; non-obvious subject matter**
>
> "A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made."

Section 102 is reproduced in full as Appendix I. The portions of this section pertinent to this petition are as follows:

> **"§ 102. Conditions for patentability; novelty and loss of right to patent**
>
> "A person shall be entitled to a patent unless—
>
> "(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent, or
>
> "(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one

year prior to the date of the application for patent in the United States, or

* * *

"(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or

* * * "

STATEMENT OF THE CASE

Petitioner filed suit alleging infringement of its Patent No. 2,762,393 by The Foxboro Company, Respondent (R. 2-4*). The jurisdiction of the District Court was invoked because the suit arises under the Patent Laws of the United States, 28 U.S.C. 1338(a). The original suit also alleged infringement of other patents which are not here involved.

Patent No. 2,762,393 relates to a bellows-type meter for measuring the differential pressure between two points. The patent appears in the original record, volume eleven, at pages 3632-38. Claim 6, the only claim in issue, is directed to a combination of elements, some of which are old and at least one of which is new (Appendix E, p.).

The issues of validity and infringement of claim 6 were presented to the district court at the original trial (R 4-7, 35-40, 57, 65, 78). However, in its opinion the district court concluded that there was no infringement of claim 6 and entered judgment without ruling on validity. The

*All references to the original record, Vol. 1-13, are designated by the letter "R" followed by page number at bottom of printed page.

pertinent portions of the court's findings and conclusions are findings 10 and 11 and conclusions 4 and 6 of Appendix G.

Upon the first appeal, the Fifth Circuit Court of Appeals reversed to hold claim 6 infringed (Appendix E). In its opinion, the appeals court held that:

> "The patents in suit are directed to a new combination of some old and some new elements in the meter to obtain a new or improved result. All elements except the isolation wall or barrier portion of claim 6 in patent No. 2,762,393 are disclosed by prior art."

And that as to claim 6:

> "* * * This claim accomplished a meritorious purpose by means not taught in the prior art. * * *"

It then remanded the case with directions to rule on the validity of claim 6.

Upon remand and over Petitioner's strenuous objections, (AR* pp. 65-94) the district court reopened the case to permit additional evidence to be received on the validity issue (AR pp. 101-02), although this issue was squarely before the district court on the first trial. After the reopened remand trial, the district court entered its findings of fact and concluded that claim 6 was invalid as being "obvious" to one skilled in the art under 35 U.S.C. § 103, and that claim 6 was also anticipated by prior art under 35 U.S.C. § 102 (Appendix D).

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*All references to the remand trial record, Vol. 1-2, are designated by the letters "AR".

On a second appeal, Petitioner asserted that the district court had failed to enter *any* findings sufficient to support a conclusion of obviousness under section 103. The court of appeals unequivocally held that the "failure to specifically make findings on long existent need, ability to produce and commercial success is not error" and affirmed. As to anticipation under section 102, Petitioner asserted that there was no finding by the district court that the *claimed* combination was in the prior art and that the findings which were entered were totally inadequate and insufficient to support the conclusion that claim 6 was anticipated. The appellate court ignored these assertions and stated that "Appellant (Petitioner) attacks the findings of obviousness and prior invention as clearly erroneous" (Appendix A, p. A3). Based on this wholly inaccurate statement of Petitioner's position, the court affirmed as to anticipation with the result that Petitioner has been denied a determination of one of the primary issues presented to the appellate court.

On petition for rehearing, the court's attention was called to the direct conflict with the Ninth Circuit case of *National Lead Co. v. Western Lead Products Co.*, 291 F.2d 447 (9th Cir. 1961), (Appendix H), with regard to lack of a finding supporting "obviousness"; the court was also requested to pass upon the primary issue of inadequacy of the findings to support anticipation, but the petition was denied without opinion (Appendix C).

REASONS FOR GRANTING THE WRIT

The reasons for granting the writ are as follows:

1. The direct conflict between the opinion of the Fifth Circuit Court of Appeals and the opinion of the

Ninth Circuit Court of Appeals as to the adequacy of a finding which merely paraphrases a statute should be resolved.

2. The Fifth Circuit Court of Appeals has decided the question of anticipation under 35 U.S.C., sec. 102, in direct conflict with the applicable decisions of this Court, since it has affirmed a judgment in which there is no finding of fact that the claimed combination is present in the prior art.

3. The appellate court has engaged in a process of assuming basic findings of fact upon which the conclusions of the district court may have been reached, and has then tested these assumed fact findings under the "clearly erroneous" provisions of Rule 52 (a), therefore failing to pass upon the primary issue of complete lack or insufficiency of findings to support the conclusions, so that your Petitioner has been denied a right of determination on this primary issue.

ARGUMENT

As to Question 1

There is a direct conflict between the Fifth Circuit and the Ninth Circuit as to whether or not paraphrasing of the statute 35 U.S.C. § 103 constitutes a sufficient finding to support a conclusion that an invention is obvious.

The alleged finding of the district court is Finding 6. It reads as follows (Appendix D, p. D4-5):

> "6. The differences between the subject matter covered by claim 6 of the '393 patent and the prior art referred to above are such that the subject matter as a whole would have been obvious at the time of filing of the application for the patent in question to a person having ordinary skill in the art."

This is not a finding of *fact* since it merely paraphrases the words of the statute.

The *exact* question of the sufficiency of a so-called finding which paraphrases 35 U.S.C. § 103 was considered by the Ninth Circuit Court of Appeals in *National Lead Co. v. Western Lead Products Co.*, supra (Appendix H). In the Ninth Circuit case, the district court finding was:

> "7. Claims 1 and 2 of said Letters Patent No. 2,235,487 in suit each defines an assemblage of process steps, all of which were old in the prior art in which they operated in substantially the same way to produce substantially the same result, and the subject matter of each as a whole at the time the alleged invention was made would have been obvious to and could have been produced by any person having ordinary skill in the art to which said subject matter pertains."

In holding Finding No. 7 to be a conclusion of law, the Ninth Circuit Court of Appeals said:

> "It is to be noted that findings of fact numbers 7 and 8 are little more than a paraphrase of Title 35 U.S.C.A. § 103, and a legal conclusion of want of invention. Such findings should better be denominated conclusions of law. Great Atlantic & Pacific Tea Co. v. Supermarket Corp., 1950, 340 U.S. 147, 71 S.Ct. 127, 95 L.Ed. 162.
>
> * * *
>
> "We are not aided by any findings of the district court as to what the prior art was and what plaintiff did to improve upon it.
>
> * * *

> "It is the duty of the district court to find the facts. Rule 52 (a), Federal Rules of Civil Procedure, 28 U.S.C.A. 'The findings should be so explicit as to give the appellate court a clear understanding of the basis of the trial court's decision, and to enable it to determine the ground on which the trial court reached its decision.' See Welsh Co. of California v. Strolee of California, supra. (290 F.2d 509)
>
> "It is not the proper function of this Court to engage in a proces sof assuming basic findings of fact upon which the conclusions of the district court may have been reached, and then testing these assumed fact findings under the 'clearly erroneous' provisions of Rule 52 (a)."

In the present case, the Fifth Circuit Court of Appeals held as follows:

> "* * * The failure to specifically make findings on long existent need, ability to produce, and commercial success is not error. The record supports the court's findings, he traveled the proper path though he did not note passing the signposts. * * *"

That the district court "traveled the proper path" without noting "passing the signposts" is a mere *assumption* of the appeals court. How can it be known what was in the district court's mind except by reference to his findings?

The "signposts" are the factual determinations which the district court should have made and which the Court of Appeals *assumed* would have been made. Such signposts, as the appeals court recognized, are set forth in the case of *Reiner v. I. Leon Co.*, 285 F.2d 501, 503-4 (2 Cir. 1960) and were quoted with approval in the Fourth Circuit opin-

ion in *Entron of Maryland, Inc. v. Jerrold Electronics Corp.*, 295 F.2d 670, 675 (4 Cir. 1961).

It is crystal clear that the appeals court here did *exactly* what the Ninth Circuit condemned, that is, it *assumed* the basic findings of fact and then tested these *assumed fact findings* under the "clearly erroneous" provision of Rule 52(a).

The Ninth Circuit case is indistinguishable from the present case and the conflict therebetween should be resolved.

At the same time, the appellate court failed to require compliance with Rule 52(a):

> "In all actions tried upon the facts without a jury or with an advisory jury, the court *shall find the facts specially* and state separately its conclusions of law thereon. * * * " (Emphasis added)

This failure conflicts with this Court's language in *Commissioner v. Duberstein* (Stanton, et al. v. United States), 363 U.S. 278 (1960). The trial court found that a particular transfer was a "gift" under a specific statute without any elaboration. This Court stated that:

> "Such conclusory, general findings do not constitute compliance with Rule 52 * * * " (363 U.S. at 292)

The question raised here is of great public importance in all litigation and extends far beyond the field of patent law. It is of primary public interest because in its broader aspects, it concerns every case involving a statute. In all fields of law, it is fundamental that a trial court must enter find-

ings of fact adequate to support its conclusions of law. *Schneiderman v. U. S.*, 320 U.S. 118 (1943) (naturalization statute); *Kelley v. Everglades*, 319 U.S. 415 (1943) (bankruptcy statute).

If the decision appealed from is permitted to stand, findings of fact—which are the cornerstone of final decisions by all courts—can be disregarded and alleged findings in the form of conclusions of law substituted therefor. Such theory is contrary to the basic concept of our judicial procedure, and this Court should settle the question.

As to the patent law, 35 U.S.C. § 103 is a statutory provision defining patentability which is vital to the patent system. It is referred to in every patent case from its beginning in the Patent Office to its final adjudication by the courts. There has been no decision by this Court considering the question here presented with respect to section 103, and since a direct conflict now exists between the Fifth and Ninth Circuits, this Court should, in the public interest, resolve the conflict.

As to Question 2

The law that a combination of old elements may be patentable has long been settled by this Court. *Leeds & Catlin v. Victor Talking Machine Co.* 213 U.S. 301, 318; *Diamond Rubber Co. v. Consolidated Tire Co.*, 220 U.S. 428, 443. The combination of claim 6 is one including old elements and at least one new element (Appendix E, p. E4-5). To anticipate a combination claim under 35 U.S.C. § 102, it is not enough to find that each element is present in the art but the *combination* must be shown

in the art. *Robertson Rock Bit Co. v. Hughes Tool Co.*, 176 F.2d 783 (5 Cir. 1949) cert. den., 338 U.S. 948, reh. den., 340 U.S. 923, 939.

There is *no* finding by the district court that the *combination* of claim 6 is present in any prior art of record (Appendix D). Therefore, its conclusion of anticipation under section 102 is unsupported and in fact, section 102 is inapplicable to this case. If the court had found the *claimed* combination in the prior art, this would have supported a conclusion of anticipation and that would have been the end of it. There would have been no need to refer to the "obviousness" statute, 35 U. S. C. § 103. *Armour & Co. v. Wilson & Co.*, 274 F.2d 143, 156 (7 Cir. 1960).

The question of whether a combination patent can be anticipated without any finding that the combination is present in the prior art is of great public importance to the entire patent system. It is involved in substantially every patent suit and this Court should make it abundantly clear, once and for all, that a conclusion of anticipation of a combination requires adequate findings to support it.

As to Question 3

Petitioner contended on appeal that the district court's findings 3, 4 and 5 (Appendix D, pp. D3-4) are totally *inadequate and insufficient* to support its conclusion of anticipation.* The Court of Appeals ignored such issue and said not one word concerning it. Instead, the court stated that "Appellant (Petitioner) attacks the findings as clearly erroneous" and proceeded to hold that they were

*Copy of Petitioner-Appellant's "Specification of Errors" before the Court of Appeals is attached hereto as Appendix J.

not, referring to Rule 52 (a). This did not reach the main question of *insufficiency or inadequacy* of the findings.

An appellate court is under a duty to pass upon the issues presented. Where it fails to do so, as it did here, it denies the litigant the right to determination of such issue which is tantamount to denying him a right of appeal. The failure of the appellate court to determine the issue presented is fundamental error and has prevented Petitioner from having its appellate "day in court".

CONCLUSION

For the foregoing reasons, this Petition for a Writ of Certiorari should be granted.

Respectfully submitted,

JOE E. EDWARDS
2228 First City National Bank Bldg.
Houston, Texas

Attorney for Petitioner

Dated
November ____, 1964

Of Counsel:

VINSON, ELKINS,
WEEMS & SEARLS
J. VINCENT MARTIN
A. H. EVANS

CERTIFICATE OF SERVICE

Service of this Petition has been made upon The Foxboro Company, Respondent, by mailing, first class postage prepaid, a copy thereof to Mr. Garrett R. Tucker, Jr., of Baker, Botts, Shepherd & Coates, Esperson Building, Houston, Texas 77002, and by mailing, air mail postage prepaid, a copy to Messrs. Curtis, Morris & Safford, 530 Fifth Avenue, New York, New York 10036, its attorneys, this day of November, 1964.

_____

Attorney for Petitioner

APPENDIX A

IN THE
UNITED STATES COURT OF APPEALS
FOR THE FIFTH CIRCUIT

NO. 21249

INDUSTRIAL INSTRUMENT CORPORATION,
Appellant,

v.

THE FOXBORO COMPANY,
Appellee.

Appeal from the United States District Court for the Southern District of Texas

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(July 28, 1964.)

Before HUTCHESON and RIVES, Circuit Judges, and GROOMS, District Judge.

HUTCHESON, Circuit Judge: This is the second time that claim 6 of appellant's patent No. 2,762,393 has been before us.[1] On the first appeal we held that the offend-

[1]Industrial Instruments Corp. v. Foxboro Co., 307 F(2) 783 (5th Cir. 1962).

ing device, the Foxboro Type 37 meter, infringed the claim here in issue. In finding infringement we held that claim 6 "accomplished a meritorious purpose by means not taught in the prior art".[2] However, we ordered a remand as to this claim for a determination of its validity. We instructed the district court to rule on validity on the basis of the record as it then stood or after a new trial at its discretion. The background and description of the device involved here are fully described in our prior decision.

The district judge ordered a new trial at which he received evidence of patents and drawings not offered in the original trial, additional evidence concerning patents introduced in the original trial and relevant portions of the original record. He found that,

> The invention and only contribution of Claim 6 of the '393 patent is the use of an imperforate plug (or solid wall) between a bellows and a motion takeoff linkage, to isolate the linkage and protect it from the direct effect of surges of fluid pressure within the bellows. This is accomplished by confining the flow of liquid between the bellows and the chamber containing the linkage to a constricted passageway, which limits the flow of fluid, and thus prevents the full force of the pulsations from acting upon the linkage, thus giving a "damping" effect.

He found that this was not a new concept, but rather that the contribution was disclosed by a number of prior patents. He concluded as matters of law that claim 6

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[2]Industrial Instruments Corp. v. Foxboro Co., **supra** note 1 at 786.

of '393 was invalid because of invention and disclosure in patents prior to the alleged invention and prior to the application for the patent, and that the patent was invalid because its contribution was obvious at the time of the invention.

Appellant asserts that the district court erred in reopening the trial and that, therefore, the evidence then taken should be stricken from our consideration. Appellant bases his assertion on the alleged failure of appellee to show that the new evidence was newly discovered, that his prior search for evidence had been diligent, and that the new evidence was any more than merely cumulative. In support of this proposition appellant relies on *Jamco, Inc. v. Carlson*, 274 F(2) 338 (10 Cir. 1959), *Chemical Delinting Co. v. Jackson*, 193 F(2) 123 (5th Cir. 1951), and *Barber v. Otis Motor Sales Co.* (NDNY 1917). None of these cases finds an abuse of discretion where a district court reopens a case in the absence of these alleged requirements. In fact *Barber* allows reopening though diligence was not shown. We hold that the reopening here was not an abuse of discretion. It was permitted by our prior opinion, and by the circumstance that it was only after the first trial and on appeal that appellant asserted the contribution for his patent upon which the issue of validity was finally determined.

Appellant attacks the findings of obviousness and prior invention as clearly erroneous. After a careful study of the record, we are unable to say that the findings were contrary to the truth and right of the case. They are not clearly erroneous. Appellant objects to the failure of the district court to find that certain signposts to obvious-

ness were present.[3] The failure to specifically make findings on long existent need, ability to produce, and commercial success is not error. The record supports the court's findings, he traveled the proper path though he did not note passing the signposts. Appellant's other specifications going to the merits are frivolous.

Appellant finally urges that its expenses incurred in the reopening be taxed to the appellee since the reopening was a direct result of appellee's negligent failure to introduce the evidence used in reopening at the original trial. Appellant relies on *D. W. Bosley Co. v. Wirfs*, 20 F(2) 620 (8th Cir. 1927), *Dunn Wire-Cut Lug Brick Co. v. Toronto Fire Clay Co.*, 259 F. 258 (6th Cir. 1919), and *Thomson-Houston Electric Co. v. Nassau Electric R. Co.* (C.C.N.Y. 1901). These are cases in which reopening for new evidence was allowed though costs were taxed to parties requesting reopening because they exhibited in varying degrees a lack of diligence in producing evidence on the first trial. Here the trial judge denied a motion to assess costs against the winning party for failure to show any unusual circumstances demanding such a departure from ordinary procedure. We agree. The reopening was here the result of the adoption of a new theory on the part of appellant. Re-opening under such circumstances does not require the assessment of costs against the appellee who requested reopening.

AFFIRMED.

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[3]Reiner v. I. Leon Co., 285 F(2) 501, 503-4 (2nd Cir. 1960).

APPENDIX B

IN THE
UNITED STATES COURT OF APPEALS
FOR THE FIFTH CIRCUIT

OCTOBER TERM, 1963

NO. 21249

D. C. DOCKET NO. C. A. NO. 11692

INDUSTRIAL INSTRUMENT CORPORATION
Appellant,

v.

THE FOXBORO COMPANY
Appellee.

Appeal from the United States District Court for the Southern District of Texas

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Before HUTCHESON and RIVES, Circuit Judges, and GROOMS, District Judge.

JUDGEMENT

This cause came on to be heard on the transcript of the record from the United States District Court for the Southern District of Texas, and was argued by counsel;

ON CONSIDERATION WHEREOF, It is now here ordered and adjudged by this Court that the judgment of the said District Court in this cause be, and the same is hereby, affirmed;

It is further ordered and adjudged by this Court that the appellant, Industrial Instrument Corporation, be condemned to pay the costs of this cause in this Court for which execution may be issued out of the said District Court.

Issued as Mandate: July 28, 1964

APPENDIX C

IN THE
UNITED STATES COURT OF APPEALS
FOR THE FIFTH CIRCUIT

NO. 21249

INDUSTRIAL INSTRUMENT CORPORATION,
Appellant,

v.

THE FOXBORO COMPANY,
Appellee.

Appeal from the United States District Court for the Southern District of Texas

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(SEPTEMBER 1, 1964)

On Petition for Rehearing

Before Judges HUTCHESON and RIVES, Circuit Judges, and CROOMS, District Judge.

PER CURIAM:

It is ORDERED that the petition for rehearing in the above entitled cause be, and it is hereby DENIED.

APPENDIX D

IN THE

UNITED STATES COURT OF APPEALS

FOR THE SOUTHERN DISTRICT OF TEXAS
HOLDING SESSIONS AT HOUSTON

NO. 11,692

INDUSTRIAL INSTRUMENT CORPORATION,
Appellant,

v.

THE FOXBORO COMPANY,
Appellee.

Opinion by Connally, J.:

August 1, 1963

FINDINGS OF FACT AND CONCLUSIONS OF LAW

(Filed Aug. 1, 1963)

STATEMENT OF THE CASE

This action presently is before this Court on remand from the Court of Appeals for the Fifth Circuit (Industrial Instrument Corporation v. Foxboro Company, 307 F.2d 783).

At the trial in this Court in August 1960, This Court held that several patents owned by plaintiff had not been infringed by the defendant's "Type 37" meter. Included therein was Reese patent 2,762,393. Additionally, this Court held that Reese patent 2,827,716 was invalid because the patentee Reese was not in fact the inventor.

On appeal, the judgment of this Court was affirmed in part. It was reversed, however, in so far as it held that Claim 6 of plaintiff's '393 patent had not been infringed, and the action was remanded with direction that this Court pass upon the validity of that patent. This Court likewise was directed to pass upon the contentions advanced upon the trial, but not ruled upon by this Court, to the effect that the Reese '716 patent was invalid as well for the reason that it lacked patentable invention over the prior art.

Pursuant to the mandate of the Court of Appeals, these issues were considered upon the original record, and upon additional evidence offered by the parties, restricted to the issue of the invalidity of patent '393 over the prior art.

Reference is made to the Findings of Fact and Conclusions of Law filed herein following the 1960 trial; to the proceedings in the Court of Appeals mentioned above; and to the subsequent hearing in this Court. In the light of the ruling by the Court of Appeals that this Court in the original hearing did not grant patent '393 as wide a range of equivalents as should have been accorded it, and the observation that Claim 6 thereof "accomplished a meritorious purpose by means not taught in the prior art", I proceed to consider the issue upon the premise

that plaintiff's contention is correct in that, this being a combination patent, in order to prevail the defendant not only must show that each of the elements combined therein was known to the prior art, but that the peculiar combination thereof likewise was known to the prior art, or was obvious to a person having ordinary skill in the art.

FINDINGS OF FACT

1. The plaintiff's '393 patent constitutes a modification of the structure shown in the plaintiff's earlier '392 patent which, in turn, was a modification of the basic Barton Jones patent 2,632,474.

2. The invention and only contribution of Claim 6 of the '393 patent is the use of an imperforate plug (or a solid wall) between a bellows and a motion take-off linkage, to isolate the linkage and protect it from the direct effect of surges of fluid pressure within the bellows. This is accomplished by confining the flow of liquid between the bellows and the chamber containing the linkage to a constricted passageway, which limits the flow of fluid, and thus prevents the full force of the pulsations from acting upon the linkage, thus giving a "damping" effect.

3. This contribution of Claim 6 of the '393 patent was not a new concept of Reese, but was disclosed by a number of prior patents. In fact, the principle of damping to restrict the rate of flow of the fluid from one chamber to the other, and thus to minimize the effect of rapid surges or fluctuations of pressure upon the indicator motion

take-off linkage, by permitting passage only through a single passageway, had long been in wide use. The following patents concerning which evidence was adduced at the recent hearing illustrate this principle: Cook patent 1,808,207; Fulton patent 897,730; Hofer patent 2,276,580; Annin patent 2,418,614; Barnes patent 2,466,071; Greenwood patent 2,627,183; Jones patent 2,752,949.

4. The patents mentioned above establish that it was well known in the art that the motion transmitting linkage of a liquid filled bellows or diaphragm type differential pressure measuring instrument could be protected from surges of pressure in the high pressure chamber by a wall which is solid, except for a constricted passageway which limits the rate of flow of liquid from the high pressure chamber, and thus damps out rapid pulsations of fluid pressure. Many of these devices were provided with overrange protection, some of the valve type disclosed in the '393 patent, and others of the mechanical stop type employed by the defendant in its accused meter, and held by the Court of Appeals to be the equivalent of the valve type.

5. Prior to the filing date of the application for the plaintiff's '393 patent, the defendant Foxboro had conceived the same principle of using a solid wall with only a restricted passageway therein, to limit the flow of fluid in diaphragm type differential pressure measuring devices, to damp out the effect of rapidly fluctuating pressures; and had used this principle in meters which were constructed and tested.

6. The differences between the subject matter covered by Claim 6 of the '393 patent and the prior art referred

to above are such that the subject matter as a whole would have been obvious at the time of filing of the application for the patent in question to a person having ordinary skill in the art.

7. The '716 patent covers a differential pressure measuring instrument provided with a bellows temperature compensator, consisting of a bimetallic element located in the fill liquid within the high pressure bellows, and connected to the bellows so as to vary its capacity in accordance with changes in the volume of the fill liquid due to changes in temperature; so that such changes in volume do not produce an appreciable movement of the outer end of the low pressure bellows, and thus of the differential pressure measurement transmitted through the motion take-off linkage connected thereto.

8. This principle of using a bimetallic element to vary the capacity of a liquid filled bellows or diaphragm in a pressure measuring instrument, to compensate for the thermal expansion and contraction of the fill liquid, is not novel, but is disclosed in a number of prior patents, including the following: Sands patent 1,552,762; Becker patent 1,559,063; O'Brien patent 1,898,848; and Haas German patent 688,097.

9. The differences between the subject matter covered by Claims 1-6 of the '716 patent in the prior art are such that the subject matter as a whole would have been obvious at the time said subject matter was allegedly invented by Reese, to a person having ordinary skill in the arts.

CONCLUSIONS OF LAW

1. This Court has jurisdiction of the subject matter and of the parties.

2. Claim 6 of the Reese '393 patent is invalid and void because the subject matter covered thereby was not novel; but was invented, known and used by others in this country and was disclosed in patents issued to others before the alleged invention of such subject matter by the patentee Reese, and prior to the application for said patent '393 (35 U.S.C.A. 102 (a), (b), (e), (g))

3. Claim 6 of the Reese '393 patent is invalid and void for the further reason that the differences between the subject matter sought to be patented, and the prior art, are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art. (35 U.S. C.A. 103)

4. Claims 1-6 of the Reese patent '716 are invalid and void because the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art. (35 U.S.C.A. 103)

Done at Houston, Texas, this 1st day of August, 1963.

/s/ BEN C. CONNALLY
United States District Judge

APPENDIX E

307 F.2d 783

IN THE
UNITED STATES COURT OF APPEALS
FOR THE FIFTH CIRCUIT

NO. 18866

INDUSTRIAL INSTRUMENT CORPORATION,
Appellant,

v.

THE FOXBORO COMPANY,
Appellee.

Appeal from the United States District Court for the Southern District of Texas

(September 6, 1962)

[784]

Before HUTCHESON, RIVES and BELL, Circuit Judges.

BELL, Circuit Judge: This appeal is from judgment for defendant, appellee here, in a patent infringement suit. It concerns differential pressure measuring meters, in wide

use in the oil, gas and chemical industries for measuring the quantity of gas or liquids passing through pipelines. The parties each manufacture meters having many characteristics in common for this purpose.

The patents in suit are numbered 2,762,392, claims 4, 6, 7, and 10, issued September 11, 1956; 2,762,393, claim 6, issued September 11, 1956; and 2,827,716, claims 1 through 6, issued March 25, 1958. They were issued to W. M. Reese, president of appellant, and assigned to appellant. The accused device is the Foxboro Type 37 meter.

Appellant sought injunctive relief and damages by reason of the accused device allegedly infringing the several claims of the patents in suit. Appellee asserted the defenses of invalidity in view of the prior art, and because the claimed inventions were obvious to persons having ordinary skill in the art, and also that of non-infringement. An additional defense to the suit on the third patent, 2,827,716, was based on invalidity by reason of the invention having been made by another. The court found non-infringement as to the first two patents, and invalidity as to the third by reason of the invention being that of an employee of appellee.

The meters involved are of the same general type as were manufactured and sold by Barton Instrument Company of California for many years before either of the parties to this litigation entered the field. Reese, president of appellant, was formerly sales agent for Barton. The patents covering the Barton meter, issued to Barton Jones, are a part of the prior art.

The meters of Barton and the parties here all accomplish the flow measurements in substantially the same manner. An orifice plate is inserted across the pipe carrying the flow to be measured. Tubes are then connected to the pipe on opposite sides of the orifice plate to transmit the pressures on the upstream and downstream sides of the plate to the high pressure and low pressure sides of the meter. The difference between the two pressures is an accurate measure of the volume flowing through the pipeline and the difference is measured by the meter, and recorded on a chart by means of a recording pen attached to the meter. The rate of flow can be read directly from the chart if the chart is calibrated in units of volume.

The meters of each company have in common a casing consisting of two end caps mounted on each side of a center plate, thus dividing the casing into two chambers, one of which is connected to the upstream side of the pipeline and called the high pressure side and the other, the low pressure chamber, to the downstream side of the pipeline. The center plate has a central chamber within it. Each chamber contains a bellows, mounted on each side of the center plate. The two bellows and the chamber in the center plate are filled with an incompressible liquid. Since the liquid expands and contracts with the ambient temperature increases and decreases, each of the three types of meters is provided with some means to compensate therefor in [785] measuring the volume. The fill liquid flows from one bellows to the other through the center plate chamber and the flow is restricted by a damping valve to obviate the effect of pulsations in the pressure. The damping valve may be adjusted manually. Each of the meters has range springs within the low pressure chamber which

are arranged to supplement the spring effect of the bellows and to thus oppose the expansive movement of the low pressure bellows when the fill liquid is forced into it from the high pressure bellows. The low pressure bellows in each meter is connected to the recording pen by a linkage arrangement.

Appellant is a corporation organized by Reese. He became associated with Barton before its meter had been perfected for use in high pressure gas measurement and for some years worked closely with Barton to adapt its meter to that end. He made among other suggestions the use of the damping chamber which became the subject matter of a Barton Jones patent. This arrangement with Barton ended in 1951 and Reese continued to work in the field with the result that the patents in suit were issued.

Appellee is a manufacturer of industrial instruments and is one of the leading companies in the gas measurement field. It formerly offered a mercury type meter and also Barton meters using a Foxboro recording device. The accused Type 37 device was developed by the research personnel of appellee between 1954 and 1956 and marketing of it began in 1957. It was developed after Barton refused to license appellee under this patents. The mercury meter had certain disadvantages and there was a definite need for the bellows or dry type meter with which this litigation is concerned.

The patents in suit are directed to a new combination of some old and some new elements in the meter to obtain a new or improved result. All elements except the isolation wall or barrier portion of claim 6 in patent No. 2,762,393

are disclosed by the prior art. None of the patents are basic or pioneer in scope.

The combination under the claims of patent 2,762,392 as distinguished from the prior art was the disconnection of the high pressure bellows from the control stem, leaving it in the low pressure bellows only,[1] means to control the rate

[1]This is to some extent taught by patent 2,659,390 issued to Maclea et al. dated June 17, 1948.

of flow upon expanding and collapsing movements of the bellows, the disposition of the range springs in a manner causing them to exert their force in a direction around the periphery of the low pressure bellows so as to stabilize the bellows and control stem in the interest of accuracy, and an improved method of mounting the bellows on the center plate. The trial court failed to make a finding as to the validity of the claims of this patent, but found that none of the claims were infringed by the accused device. We affirm.

Our affirmance is based on the doctrine that a patentee who is only a narrow improver, as is the case with this particular patent, has a monopoly restricted only to his improvement. He cannot prevent others from making improvements on the prior art unless they use substantially the very novelty which is the basis of his patent. And infringement exists only when the accused device and the teaching of the patent in suit are substantially identical in structure, mode of operation, and result to be accomplished. *Edwards v. Johnston Formation Testing Corporation*, 5 Cir., 1932, 56 F.2d 49; and *Stewart-Warner Corp. v. Lone Star Gas Company*, 5 Cir., 1952, 195 F.2d 645.

Of course, as *Southern Saw Service, Inc. v. Pittsburgh-Erie Saw Corporation*, 5 Cir., 1956, 239 F.2d 339 teaches, an inventor with respect to his patent is entitled to a range of equivalents commensurate with the scope of his invention. But as to this patent, as distinguished from claim 6 of patent 2,762,393 to be hereafter discussed, the range [786] of equivalents is narrow because the scope of the invention is narrow. Without laboring the point, the evidence was entirely sufficient to support the finding of non-infringement by the District Court when viewed in this light. The range springs and the over range stop element are substantially different in structure from their alleged counterparts. This is likewise true as to the method of mounting the bellows on the center plate. This is made more evident by a comparison of the claims in suit, the accused device and the devices of the Barton Jones patents. No doubt these claims would be infringed if a pioneer or basic patent was involved as the function of these elements of the accused device and the end result is the same as that of the patent, but we are dealing with a slight improvement only. Appellant designed around the prior art. Appellee had the same right, and the prior art included the patent in suit. This was the case in this instance.

And it was not error for the court to rule on non-infringement without first ruling on validity where such a narrow improvement patent is involved and its validity vel non is of no great public importance. *Stewart-Warner Corp. v. Lone Star Gas Co., supra.* Cf. *Sinclair & Carroll Company, Inc. v. Interchemical Corporation*, 1945, 325 U.S. 327, 65 S.Ct. 1143, 89 L.Ed. 1644 which points out that

the better practice is to inquire fully into validity; contra, *Automatic Arc Welding Co. v. A. O. Smith Corporation*, 1932, 60 F.2d 740.

The finding that claim 6 of patent 2762,393 was not infringed was error. Appellant was entitled to a wider range of equivalents than that accorded by the court. This claim accomplished a meritorious purpose by means not taught in the prior art. Under it the control stem is isolated from the direct effect of the liquid in the high pressure bellows by a barrier or wall, stabilizing the flow and thus protecting the indicator linkage from surges of pressure. The bellows of both meters are mounted in separate chambers separated by a wall containing a central chamber. The wall on the high pressure chamber side of the meter of appellant is made solid by the insertion of a plug into the wall. This design was used because of the necessity for manual access to the central chamber under the over-all design of the meter. It amounts to a two piece wall. Appellee accomplishes the same purpose by a one piece solid wall. We hold that infringement cannot be avoided by using a one piece wall rather than a two piece wall. They are the same even though they differ in form. They do the same work in the same way and accomplish the same result. *The Union Paper Bag Machine Company v. Murphy*, 1878, 97 U.S. 120, 24 L.Ed. 935; *Graver Tank & Mfg. Co. v. Linde Air Products Co.*, 1949, 339 U.S. 605, 70 S.Ct. 854, 94 L.Ed. 1097; and *Bryan v. Sid W. Richardson, Inc.*, 5 Cir., 1958, 254 F.2d 191. The finding of the trial court that the wall construction of appellee was not the equivalent of the two piece wall of appellant was clearly erroneous when considered in

the light of the applicable range of equivalents to which appellant was entitled.[2]

There was no infringement issue on the trial regarding patent 2,827,716. Appellee was prosecuting a patent application in the patent office covering the same subject matter. That application was involved there with the patent in suit in an interference proceeding. The court held this patent invalid on the ground that an employee of appellee was the prior inventor rather than the patentee, a holding not clearly erroneous. [787] Rule 52 (a), Fed. R. Civ. P. No consideration was given to the other asserted grounds of invalidity; that the claims defined no invention patentable over the disclosure of the prior art, and that the invention was obvious to persons skilled in the art.

The effect of the holding of the court was to secure appellee a monopoly of the subject matter of the patent, should a patent issue, in the face of these two self-destroying defenses which apply to the very same invention. Either would invalidate any patent granted appellee. This windfall comes through the error of the court in failing to pass on these defenses. It is clear from the record that none of the meters of the parties were successful measuring devices until the subject matter of this patent, a bi-metal temperature compensator, was perfected. It advanced the art and was

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[2]We may reverse free of the clearly erroneous rule where, as is the case here, the issue revolves around an ultimate fact question as distinguished from subsidiary fact questions, or where mixed questions of law and fact are presented when there is error as to the law. Galena Oaks Corporation v. Scofield, 1954, 218 F.2d 217. 5 Moore's Federal Practice, 2 Ed., § 52.03 (3), p. 2631; Baron and Holtzoff, Wright Ed., Fed. Practice and Procedure, § 1137, p. 560.

not taught by the Barton Jones patents. Unlike patent 2,762,362, something more than a narrow improvement is involved and the public interest requires a ruling on these questions going to invalidity. *Sinclair & Carroll Company, Inc. v. Interchemical Corporation, supra.* We reverse so that the District Court may reach these questions.

And for the same reason and while about it, the court should rule on the validity of claim 6 of patent 2,762,393. Appropriate relief should be granted appellant as to it in the event it is found to be valid.

The District Court may rule on these questions of validity on the present record, or upon the present record and additional evidence, or after a new trial, all in its discretion. Rule 59 (a), Fed. R. Civ. Procedure; and *Aetna Insurance Company v. Paddock,* 5 Cir., 1962, 301 F.2d 807. However, the present long record representing as it does a trial taking over three weeks appears to be more than adequate to cover these issues.

Having AFFIRMED in part and REVERSED in part, we REMAND for further proceedings not inconsistent herewith.

APPENDIX F

IN THE
UNITED STATES COURT OF APPEALS
FOR THE FIFTH CIRCUIT

NO. 18,866

INDUSTRIAL INSTRUMENT CORPORATION,
Appellant,

versus

THE FOXBORO COMPANY,
Appellee.

Appeal from the United States District Court, for the Southern District of Texas

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(December 5, 1962)

(ON PETITION FOR REHEARING)

Before HUTCHESON, RIVES and BELL, Circuit Judges.

PER CURIAM: It is ORDERED that the petition for rehearing filed in the above entitled and numbered cause be, and the some is, hereby DENIED.

Our opinion of September 6, 1962 is modified as follows with reference to the holding relative to infringement of claim 6 of patent 2,762,393. The stop or stacking rings in

the accused device are the equivalent in function and result of the valve means set out in claim 6. The recited valve means is the over range stop which halts movement of the end wall of the low pressure bellows to prevent rupturing when the bellows is subjected to excessive pressure. *The Union Paper Bag Machine Company v. Murphy*, 1878, 97 U.S. 120, 24 L.Ed. 935; *Graver Tank & Mfg. Co. v. Linde Air Products Co.*, 1949, 339 U.S. 605, 70 S.Ct. 854, 94 L.Ed. 1097; and *Bryan v. Sid W. Richardson, Inc.*, 5 Cir., 1958, 254 F.2d 191. Such finding as the trial court made to the contrary in this regard is clearly erroneous to the extent necessary to hold it so. See footnote 2, main opinion. This is in light of the fact that appellant was entitled to a wider range of equivalents than that accorded by the court.

The accused device embodies equivalents of all of the elements of the claim. No single element is omitted. The claim was infringed by the accused device. Walker on Patents (Deller's Edition) § 482.

Costs are taxed one half on appellant and one half on appellee.

APPENDIX G

IN THE
UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF TEXAS
HOLDING SESSIONS AT HOUSTON

NO. 11,692

INDUSTRIAL INSTRUMENT CORPORATION,
Appellant,
v.
THE FOXBORO COMPANY, Appellee

Opinion by Connally, J.:

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[354]

August 29, 1960

FINDINGS OF FACT
AND CONCLUSIONS OF LAW

Statement of the Case:

This is an action for patent infringement. Plaintiff Industrial Instrument Corporation (referred to hereafter as I.I.C., as it was at the trial) is a Texas Corporation with its principal place of business in Austin, Texas. The corporation is largely owned, and is controlled, by its presi-

dent, W. M. Reese, to whom all the patents in controversy were granted, and by whom they were assigned to the plaintiff corporation.

[355]

The defendant, The Foxboro Company, is a Massachusetts corporation, with its principal place of business in that State, but maintaining a place of business in this city, where it sells its accused device.

The controversy concerns a differential pressure measuring device or meter, for the measurement of the quantity of gas or liquids passing through a pipe line. Meters of this type are in wide use in the oil, gas and chemical industries, both in industrial plants, refineries, etc., and in the field. As will be noted in more detail later herein, plaintiff and defendant each manufacture a meter of this type, with many characteristics in common.

Four Reese patents are in controversy: Patent No. 2,762,392 (Claims 4, 6, 7 and 10) issued September 11, 1956; Patent No. 2,762,393 (Claim 6) issued September 11, 1956; Patent No. 2,890,721 (Claims 1, 2 and 4) issued June 16, [356] 1959; and Patent No. 2,827,716 (Claims 1 through 6) issued March 25, 1958. The plaintiff had alleged infringement of the Reese Patent No. 2,762,391. However, at the beginning of the trial plaintiff withdrew this patent from contention. Hereafter, the several patents will be referred to by the last three digits of the patent number.

By way of relief, the plaintiff seeks an injunction and damages, contending that the Foxboro "Type 37" meter infringes the several claims of the enumerated patents. The defendant raised the following defenses:

1. *Claims 4, 6, 7 and 10 of Patent 2,762,392.*

(a) Non-infringement because it contends it has not used meters having therein the combination of elements recited in any of these claims.

(b) Invalidity, because it is contended the claims define no invention that is patenable over the disclosures in the prior art.

(b) Invalidity, because the claims are predicated on a structure which is inoperative to attain the result sought to be attained by the patentee.

[357]

2. *Claim 6 of Patent 2,762,393.*

(a) Non-infringement, because defendant contends it has not used meters having therein the combination of elements recited in this claim.

(b) Invalidity, because the claim defines no invention that is patentable over the disclosures in the prior art.

3. *Claims 1, 2 and 4 of Patent 2,890,721.*

(a) Non-infringement, because defendant contends it has not used the combination of elements recited in these claims.

(b) Invalidity, because the claims define no invention that is patentable over the disclosures in the prior art.

4. *Claims 1 through 6 in suit of Patent 2,827,716.*

(a) Invalidity, because the patentee Reese was not the first inventor of the combinations of elements recited in these claims.

(b) Invalidity, because the claims define no invention that is patentable over the disclosures in the prior art.

[358]

FINDINGS OF FACT

1. Both plaintiff and defendant manufacture and sell differential-pressure measuring meters of the same general type as had been manufactured and sold by Barton Instrument Company of California for many years before either plaintiff or defendant entered the filed; the Barton Company meter was thus part of the prior art.

2. All three of these meters (Barton's, plaintiff's and defendant's) accomplish such flow measurements generally in the following manner; a plate with a central hole through it, called an "orifice plate" is inserted across the pipe carrying the fluid flow to be measured. Tubes connected to the pipe at opposite sides of this orifice plate conduct the pressures on the "upstream" and "downstream" sides of this plate to the opposite sides of the differential-pressure meter. The difference between these two pressures is an accurate measure of the volume of fluid flowing through the orifice plate, and, thus, through the pipeline. This difference in pressure is measured by the meter and may be recorded on a chart by means of a recording pen and, if the chart is calibrated [359] in units of volume, the rate of flow through the pipeline can be read directly from it.

3. These three meters (Barton's, plaintiff's and defendant's) have many features in common.

(a) Each meter has a casing consisting of two end caps mounted on each side of a center plate.

(b) The casing thus formed is divided into two chambers by this center plate. For flow measurements, one chamber (high pressure) is provided with a tube for connection to the upstream side of the orifice plate, while the other chamber (low pressure) is provided with a tube for connection to the downstream side of the orifice plate.

(c) The center plate has a central chamber within it.

(d) A bellows is mounted on each side of the center plate, one being mounted in the high pressure chamber, and the other in the low pressure chamber. The interiors of these bellows have no communication with the liquid or gas surrounding the bellows in either of these chambers.

[360]

(e) The two bellows and the chamber in the center plate are completely filled with an incompressible liquid. Since this liquid expands and contracts as the ambient temperature increases and decreases each of the three meters is provided with some means for varying the effective volumetric capacity of the bellows as the ambient temperature varies and causes the fill liquid to expand and contract.

(b) There is a passage from one bellows through the center plate chamber to the other bellows which permits the fill liquid to flow from one bellows to the other. A damping valve is installed in this passage to

restrict the flow of the fill fluid from one chamber to the other, and thus damp out the effect of pulsations in the differential pressures being measured due, for example, to strokes of the pump used to force a liquid or gas through a pipe line.

(g) The effective cross-sectional dimension of this passage is varied, as desired, by manual adjustment of the damping valve.

[361]

(h) Range springs are located within the low pressure chamber and arranged to supplement the spring effect inherent in the bellows, thus opposing the expansive movement of the low pressure bellows when the fill liquid is forced into it from the high pressure bellows.

(i) These range springs may be removed and replaced by others having a different spring rate to permit the meter to operate at different ranges of differential pressure.

(j) The low pressure bellows is mechanically connected to the recording pen by a linkage arrangement.

4. None of the patents here in controversy are basic patents covering the differential flow meter. Each claim in each of the patents in controversy is a combination claim, covering a special combination of elements or features in the meter. Very few, if any, of such elements or features were new or novel; most, if not all, are disclosed by the prior art. The specific combination of such elements or [362] features was the contribution of Reese, and the basis of his patents.

The drawings and specifications of all the patents in controversy disclose only minor structural changes over the Barton meter, and over the prior art.

5. The defendant does not employ in its accused Type 37 meter any of the specific structural arrangements as recited in any of the claims in suit, and as disclosed in the drawings and specifications of the patents in suit.

Patent 2,762,392 (Claims 4, 6, 7 and 10):

6. The meter disclosed in the 392 patent utilizes certain over-range valves which are connected to the low pressure bellows. Referring thereto, Claims 4, 6 and 7 of the 392 patent each calls for "valve means" for controlling the liquid flow. Plaintiff contends that the so-called "stacking rings" of the high pressure bellows of defendant's Type 37 meter, when such high pressure bellows is collapsed, from liquid-tight engagement with one another, closing a portion of the incompressible liquid in the convolutions of such bellows; and further contends that the retention of a portion of such liquid [363] within the convolutions is necessary to protect the diaphragms of such high pressure bellows against high external pressures. Plaintiff contends that this action constitutes "valve means" an equivalent of the valve means recited in Claims 4, 6 and 7.

I find to the contrary, and that such stacking rings do not act as valves or valve means, nor are they the equivalent of the valve means recited in Claims 4, 6 and 7. Such stacking rings were not designed or intended to accomplish a liquid-tight closure, and they do not perform in this fashion. Physical tests performed during the course of the trial, concerning which much testimony was re-

ceived, show conclusively that it is not necessary to retain a portion of the liquid within the convolutions to protect same against high external pressure.

7. Claim 4 further requires a specific placement of the range springs circumferentially at intervals around the periphery of the bellows. The record reflects that, before the Patent Office, Reese emphasized this specific placement of his range springs, and claimed considerable virtue therein, and made a distinction between this placement and that of the Barton-Jones patent.

[364]

The range springs used by the defendant Foxboro in its accused meter are of the flat spiral type. Such springs are not positioned around the outside of the bellows, and are not arranged lengthwise of the bellows as required by Claim 4. Defendant's spring arrangement is entirely distinct from that of plaintiff's, and does not infringe same.

8. Among the several elements included in Claim 10 are "mounting rings" at opposite sides of the center plate, and having detachable connections with said center plate, each of the bellows having the inner end thereof telescoped into one of the mounting rings, and fixed thereto at the inner edge of said mounting rings.

9. The Foxboro Type 37 meter uses mounting rings for its diaphragm bellows. However, the defendant's bellows does not have its inner end telescoped into one of the mounting rings, nor is it fixed thereto at the inner edge of said mounting rings, nor is it fixed thereto at the inner edge of said mounting ring. The reverse is true—Foxboro's mounting ring being telescoped into its bellows. The defendant's accused meter thus does not employ a bellow

[365] mounting arrangement as recited in Claim 10, or any equivalent thereof. The bellows mounting construction used by the defendant is disclosed in the prior art, and is fully justified thereby.

Patent 2,762,393 (Claim 6):

10. Claim 6, the only claim in issue concerning Patent 393, discloses that the I.I.C. meter contains a center plate, having a chamber therein (referrred to hereafter as the central chamber) with the center plate dividing the housing into separate chambers (the high and low pressure chambers, respectively); and plugs closing opposite sides of the center chamber at the sides of the center plate. Thus, one of the plugs in question closes the high pressure chamber from the central chamber; and the second plug closes the low pressure chamber from the central chamber. Both plugs are threaded and obviously are removable though the claim does not specifically recite that the plugs are removable. The record reflects that in the proceedings before the Patent Office, Reese claimed some virtue for this construction (the two threaded plugs).

[366] The comparable center plate in the defendant's meter has no such plugs at all, but there is a solid wall between the high pressure chamber on the one hand, and the central chamber; and between the low pressure chamber and the central chamber, in the comparable area. The plaintiff contends that this solid wall construction infringes its plug arrangement, in that there is no specific requirement that the plugs be removable.

Such contention appears to be exceedingly far fetched and fanciful. I am not able to accept it. The defendant's

solid wall construction is not the same as, nor an equivalent of, the plaintiff's threaded plug construction.

11. Additionally, Claim 6 provides for a "valve means" essentially the same as discussed in Patent 392 above, and for this reason as well there is no infringement of this

Patent No. 2,890,721 (Claims 1, 2, & 4):

12. The several claims under Patent 721 add to Patents 392 and 395 above a compression spring, referred [367] to during the trial as Reese's "auxiliary range spring". It serves in conjunction with the principal range springs, and supplements same in high pressure ranges; and on some occasions may be used alone and without the primary range springs in low pressure ranges. Plaintiff contends that the flexure hinges in the motion take-off linkage of the defendant's meter are the equivalent of this auxiliary range spring. There are two such flexures found in the defendant's take-off linkage—first, where the inner end of the hoizontal shaft is hinged or pivoted to the lower portion of the vertical shaft; and, second, where the vertical shaft is hinged at the motion take-off exit of the center plate. The flexures are simply small flexible strips of metal which bend backward and forward readily, and which are used in lieu of hinges because such flexures are not subject to lost motion or wear as are hinges.

The claimed similarity of which plaintiff complains lies in the I.I.C. contention that its auxiliary range spring serves an additional purpose of centering the valve [368] stem in its return to its central position; and it is argued that such flexures as are found in the Foxboro device serve the same purpose, and are equivalent to the I.I.C. auxiliary range spring.

I have serious doubt that the auxiliary range spring serves the purpose of tending to center the range valve to insure its proper seating, which plaintiff attributes to it. While there is some expert testimony before me to that effect, it does not appear that any contention was made before the Patent Office that it would serve this purpose, nor does the patent itself disclose that such contention was advanced. Regardless of whether the auxiliary range spring does serve this purpose, I am convinced, and find, that the flexures in the defendant's device do not; and are not the same, or equivalent to, such auxiliary range spring. Thus, there is no infringement as to Claims 1, 2 and 4

13. Additionally, the prior art discloses use of flexures as appear in the defendant's meter over a long period of time, and same have been used by the defendant and [369] others for similar purposes long prior to any date of invention available to the plaintiff. The use of such flexures is justified by prior art, and the defendant's own prior use. Further, the prior art discloses the use of spring compressions in pressure measuring devices that are equivalent to those disclosed in Claims 1, 2 and 4 in this patent.

Patent No. 2,827,716 (Claims 1-6):

14. Claims 1-6 of this patent all concern the bi-metal bellows temperature compensator, as reflected by the patent in question. The controversy here is whether Reese was the inventor of such compensator, or whether the inventor was one Bowditch, a long-time employee (Chief Designer) of the defendant. Reese contends that he conceived and reduced to practice this compensator in September, 1953. The defendant contends that Reese's con-

ception and reduction to practice came much later, probably in late 1955 or early 1956; and that Bowditch conceived the invention on or before May 21, 1954, and reduced it to practice within some few months thereafter.

[370] On this crucial and hotly contested issue, the evidence convinces me, beyond a reasonable doubt, and I find, that the defendant's contentions are accurate in all respects. I find that Bowditch conceived the invention on or before May 21, 1954, and disclosed it to others on that date; that he built and tested the first bi-metal bellows compensator on or before June 29, 1954; and I find that he built a complete meter incorporating such compensator, and operated it successfully on October 11, 1954; and that between the period October 12 and December 15, 1954, Bowditch built and successfully operated other meters successfully incorporating the compensator. The designing and development of the defendant's meter was a regular project of the defendant, carried out by Bowditch, with the assistance of many other employees of the defendant.

15. The testimony of Bowditch as to his conception, reduction to practice, testing and construction of the bi-metal bellows compensator was clear and convincing. His testimony was corroborated, not only by a number of defendant-employee witnesses, but to some extent by disinterested witnesses. Likewise, it was corroborated by a number [371] of written memoranda, notes, sketches, etc., which convinced me beyond a reasonable doubt of the accuracy and credibility of this version of the matter.

16. The plaintiff's contention that Reese conceived and reduced to practice the bi-metallic compensator in Sep-

tember, 1953, is dependent for support almost entirely on Mr. Reese's testimony. It finds only slight corroboration from any other source. As a witness Mr. Reese was exceedingly evasive on cross-examination. His testimony was impeached in a number of important particulars. He was "unable to recall" when questioned, on cross-examination, about matters of the greatest importance, concerning some of which he had testified in considerable detail on deposition shortly prior to trial. I find his testimony as to this early conception and reduction of practice not to be credible. The strongest circumstantial evidence is directly to the contrary.

17. Reese conceived the bi-metal bellows compensator not prior to October, 1955, and reduced same to practice not prior to January 1, 1956.

[372] 18. The evidence establishes beyond a reasonable doubt that Bowditch made the bi-metal bellows compensator, the invention recited in Claims 1-6 of Patent 716, prior to Reese.

CONCLUSIONS OF LAW

1. This Court is vested with jurisdiction over the parties and subject matter of the action.

2. The action is dismissed without prejudice as to Patent No. 2,762,391, as requested by the plaintiff at the beginning of the trial.

3. Plaintiff is the owner of the several patents in suit.

4. Defendant has not infringed Patent No. 2,762,392; has not infringed Patent No. 2,762,393; and has not infringed Patent No. 2,890,721.

5 Patent No. 2,827,716 is invalid because Reese, the patentee, was not the original and first inventor of the subject matter claimed.

6. Defendant is entitled to judgment of non-infringement as to Patent No. 2,762,392; Patent No. 2,762,393; and as to Patent No. 2,890,721; and the defendant is entitled [373] to judgment of invalidity as to Patent No. 2,827,716.

7. Costs of Court are taxed against the plaintiff.

8. The action should be dismissed.

Clerk will furnish counsel of record a copy of the foregoing Findings of Fact and Conclusions of Law. Counsel for defendant will prepare and present appropriate order promptly.

Done at Houston, Texas, this 29th day of August, 1962.

s/ BEN C. CONNALLY
United States District Judge

APPENDIX H

No. 16959

IN THE
UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

NATIONAL LEAD COMPANY,
Appellant,

v.

WESTERN LEAD PRODUCTS COMPANY,
Appellee.

WESTERN LEAD PRODUCTS COMPANY,
Appellant,

v.

NATIONAL LEAD COMPANY,
Appellee.

June 15, 1961

Before CHAMBERS, HAMLIN and JERTBERG, Circuit Judges.

JERTBERG, Circuit Judge.

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* Since cross-appeals are involved, we will in this opinion refer to the parties by their designations in the district court.

[1] The plaintiff, National Lead Company, owner of Mayer patent No. 2,235,437, instituted this action against defendant, Western Lead Products Company, charging infringement of its patent and seeking damages [to be trebled because of the alleged wilful character of the infringement], as well as injunctive relief. Defendant filed its answer denying infringement, and alleging the Mayer patent to be invalid for lack of invention and on other grounds, and alleging that any recovery by plaintiff was barred by laches.

The district court had jurisdiction of the action under Title 35 U.S.C.A. § 281 and Title 28 U.S.C.A §§ 1338(a) and 1400(b). Jurisdiction of this Court is based upon Title 28 U.S.C.A. §§ 1291 and 1294.

Following trial, the district court found that claims 1 and 2 of the Mayer patent were lacking in invention, that claim 2 had been infringed by the defendant and that plaintiff was not guilty of laches. Judgment was entered accordingly. Plaintiff appeals from the judgment of the district court dismissing its complaint, and the defendant cross-appeals from that part of the judgment holding that claim 2 of the Mayer patent had been infringed, and holding that plaintiff was not guilty of laches.

[2] The Mayer patent was issued March 18, 1941 on an application filed February 10, 1937, and expired March 18, 1958. Although the district court found that both claims one and two of the patent were invalid, we do not consider that the validity of claim one is involved in this appeal since plaintiff does not argue the validity of claim one because of mootness. Further, we do not consider that the issue of laches is involved in this appeal since the

defendant in its statement of points to be relied upon on its cross-appeal, as required by Rule 17(6) of this Court, 28 U.S.C.A. states only that "The District Court erred in Finding of Fact 9, in holding that claim 2 of Letters Patent No. 2,235,487 in suit, if valid, has been infringed by the defendant."

In view of the disposition which we intend to make of the appeal and cross-appeal, we deem it unnecessary to describe the patent or claim two thereof in detail. The patent describes and claims a process for converting molten lead into a finely-divided mixture that is suitable for making the lead plates of lead storage batteries. The basic apparatus for such process is known as a Barton Pot. The Barton Pot is old in the art, and consists of a cast iron pot or kettle designed to hold a quantity of molten lead. The molten lead is introduced into the pot and vigorously agitated by being driven against a fixed radial baffle by a rotating stirrer or paddle. While the lead is being thus agitated, air and steam jets infuse air into the upper part of the pot. This air oxidizes the lead, carries off the mixture to a settling chamber, and cools the pot, which tends to become increasingly hot even without external heat, due to the exothermic character of the chemical reaction taking place.

The Mayer patent states that it achieves a solution to two previously unsolved problems, the problem of achieving a uniform mixture from the Barton Pot, and the problem of preventing the temperature from varying greatly as the reaction progresses. The patent teaches that these problems are related, in that if the reaction can be controlled by maintaining a constant temperature, a uni-

form product will result. The patent description includes a table showing different temperatures which produce mixtures of different composition, and the patent states that a uniform mixture of any desired type can be achieved by holding the temperature to a variation not exceeding 100° F. As a device for maintaining a constant temperature, the patent describes a device designed to regulate the rate of feeding of the molten lead into the Barton Pot, decreasing it as the temperature rises, increasing is as the temperature decreases, without varying the air flow to any great extent (since the air flow also controls oxidation and carries off the mixture, it is not susceptible to any great variation). The apparatus described in the patent describes a second pot serving as a reservoir in which molten lead is heated initially and a feeding duct from the reservoir pot into the Barton Pot, entering below the level of the molten lead in the Barton Pot. The feeding duct is controlled by a valve which can be operated so as to increase or decrease the feed as changes inside the Barton Pot are noted on a pyrometer.

Plaintiff emphasizes that the inventive character of the Mayer patent lies in the fact that Mayer first recognized the importance of temperature control, as well as in Mayer's use of a varying rate of feed in order to achieve temperature control. Plaintiff claims that as a result of the use of the patented device, temperatures within a Barton Pot do not fluctuate more than 50° above or below a desired operating temperature.

Claim 2 defines a continuous process of obtaining a three component lead-lead oxide product, defines the basic nature of the Barton Pot process, and states how this

process is controlled to make it continuous and to produce a product of uniform color and composition.

In support of its defense of invalidity of the Mayer patent for lack of invention defendant relies on (1) plaintiff's own lead oxide process used by it prior to the asserted invention of the Mayer patent and referred to as the "Bradley Plant" process; (2) five prior art patents; and (3) the prior knowledge and use by Merals Refining Company, a stranger to the action, of the Mayer process over a long period of time prior to the alleged invention of the Mayer patent. In addition, defendant asserted that the Mayer patent was invalid because its claims are fatally indefinite.

The trial of the action was to the court sitting without a jury. The testimony of a number of witnesses was offered and received for and on behalf of each party. In addition, the testimony of three witnesses by way of depositions was offered and received, as well as a number of exhibits. Following the submission of the cause, the district court in its findings of fact, after designating the parties and noting its jurisdiction, found as follows:

> "6. Claims 1 and 2 of said Letters Patent No. 2, 235,487 in suit each relate to a process for making a composition of lead oxide and finely divided metallic lead.
>
> "7. Claims 1 and 2 of said Letters Patent No. 2,235,487 in suit each defines an assemblage of process steps, all of which were old in the prior art in which they operated in substantially the same way to produce substantially the same result, and the subject matter of each as a whole at the time the alleged

invention was made would have been obvious to and could have been produced by any person having ordinary skill in the art to which said subject matter pertains.

"8. Claims 1 and 2 of said Letters Patents No. 2,235,487 is each wanting in invention.

"9. Claim 2 of said Letters Patent No. 2,235,487, if valid, has been infringed by the defendant, Western Lead Products Company, prior to expiration of said Letters Patent on March 18, 1958 and within six (6) years prior to the filing of the complaint herein; but no evidence that defendant has infringed claim 1 of said Letters Patent was offered at the trial.

"10. The plaintiff, National Lead Company, was not guilty of laches as to defendant prior to the filing of this action."

And as conclusions of law the district court concluded:

"1. The Court has jurisdiction of the parties and over the subject matter set forth in plaintiff's complaint and the defenses raised by defendant's answer.

"2. Claims 1 and 2 of said Letters Patent No. 2,235,487 in suit are, and each of them is, invalid and void in law for lack of invention.

"3. The defendant, Western Lead Products Company, is entitled to judgment against the plaintiff, National Lead Company, dismissing the complaint with prejudice and with taxable costs to defendant, and adjudging claims 1 and 2 of said Letters Patent No. 2,235,487 in suit invalid and void."

[3] It is to be noted that findings of fact numbers 7 and 8 are little more than a paraphrase of Title 35 U.S.C.A.

§ 103,[1] and a legal conclusion of want of invention. Such findings should better be denominated conclusions of law Great Atlantic & Pacific Tea Co. v. Supermarket Corp., 1950, 340 U.S. 147, 71 S.Ct. 127, 95 L.Ed. 162.

[4, 5] While invention is a question of law, the questions of validity often turn on questions of fact. See National Sponge Co. v. Rubber Corp. of America, 9 Cir., 1961, 286 F.2d 731. "What the prior art was and what the patentee did to improve upon it are questions of fact. Whether what the patentee did is properly to be classified as an invention is a question of law." Cee-Bee Chemical Co. v. Delco Chemicals, 9 Cir., 1958, 263 F.2d 150, at page 153. See also Welsh Co. of California v. Strolee of California, Inc., 9 Cir., 1961, 290 F.2d 509; Rohr Aircraft Corp. v. Rubber Teck Inc., 9 Cir., 1959, 266 F.2d 613; Bergman v. Aluminum Lock & Shingle Corp., 9 Cir., 1957, 251 F.2d 801.

On this appeal the parties assert contrary positions with regard to the prior art and plaintiff's improvements thereon, which positions are claimed to be supported by the evidence. The evidence bearing on the three categories of prior art above mentioned are separate and distinct. The

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[1]Title 35 U.S.C.A. "§ 103. Conditions for patentability; non-obvious subject matter.

"A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made. July 19, 1952, c. 950, § 1, 66 Stat. 798."

evidence adduced before the district court bearing on them is different, and different witnesses gave testimony in relation thereto.

We are not aided by any findings of the district court as to what the prior art was and what plaintiff did to improve upon it.

What we have said as to the inadequacy of findings of fact on the issue of validity is equally applicable to the issue of infringement.

[6] It is the duty of the district court to find the facts. Rule 52(a), Federal Rules of Civil Procedure, 28 U.S.C.A. "The findings should be so explicit as to give the appellate court a clear understanding of the basis of the trial court's decision, and to enable it to determine the ground on which the trial court reached its decision." See Welsh Co. of California v. Strolee of California, supra.

[7] It is not the proper function of this Court to engage in a process of assuming basic findings of fact upon which the conclusions of the district court may have been reached, and then testing these assumed fact findings under the "clearly erroneous" provisions of Rule 52(a).

[8] The judgment of the district court is vacated and set aside, and the cause is remanded to the district court for the making of appropriate findings of fact and conclusions of law, and the entry of a judgment based thereon, and for such other proceedings as the district court may deem proper.

APPENDIX I

STATUTES

35 U.S.C. § 102. Conditions for patentability; novelty and loss of right to patent

A person shall be entitled to a patent unless—

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent, or

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States, or

(c) he has abandoned the invention, or

(d) the invention was first patented or caused to be patented by the applicant or his legal representatives or assigns in a foreign country prior to the date of the application for patent in this country on an application filed more than twelve months before the filing of the application in the United States, or

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or

(f) he did not himself invent the subject matter sought to be patented, or

(g) before the applicant's invention thereof the invention was made in this country by another who had not abandoned, suppressed, or concealed it. In determining priority of invention there shall be considered not only the respective dates of conception and reduction to practice of the invention, but also the reasonable diligence of one who was first to conceive and last to reduce to practice, from a time prior to conception by the other.

APPENDIX J

SPECIFICATION OF ERRORS

On this Appeal, it is Appellant's position that the District Court erred:

Point 1. In concluding, *without any finding to support such conclusion,* that claim 6 is invalid because the subject matter was anticipated by the prior art. (Conclusion of Law 2, AR 623).

Point 2. In concluding, without adequate findings to support such conclusion and *by reason of mis-application of the law to the present facts,* that claim 6 is invalid because the subject matter was obvious to persons having ordinary skill in the art. (Conclusion of Law 3, AR 623).

Point 3. In reopening the case after remand for the admission of additional evidence, without requiring the Appellee to show sufficient cause to justify reopening.

Point 4. In denying Appellant's motion for all its expenses, including attorneys' fees, incurred by reason of the reopening.